

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Withdrawn) A light-emitting device comprising:

a first layer containing a light-emitting material;

a second layer containing an N-type semiconductor;

a third layer including a transparent conductive film; and

a fourth layer containing a hole-transporting material;

wherein the first layer, the second layer, the third layer, and the fourth layer are sandwiched between an anode and a cathode,

wherein the first layer, the second layer, the third layer, the fourth layer, and the cathode are provided in order, and

wherein the cathode has a layer containing reflective metal.

2. (Withdrawn) A light-emitting device comprising:

a first layer containing a light-emitting material;

a second layer containing an N-type semiconductor;

a third layer including a transparent conductive film; and

a fourth layer containing a hole transporting material;

wherein the first layer, the second layer, the third layer, and the fourth layer are sandwiched between an anode and a cathode, and

wherein the first layer, the second layer, the third layer, the fourth layer, and the cathode are provided in order.

3. (Withdrawn) The light-emitting device according to Claim 1 or 2,

wherein the reflective metal comprises aluminum, silver, alloy containing aluminum, or alloy containing silver.

4. (Withdrawn) The light-emitting device according to Claim 1 or 2,

wherein the transparent conductive film comprises at least one material selected from the group consisting of indium tin oxide, indium tin oxide containing silicon, and indium oxide containing zinc oxide by 2 to 20%.

5. (Withdrawn) The light-emitting device according to Claim 1 or 2,

wherein the N-type semiconductor contained in the second layer comprises metal oxide.

6. (Withdrawn) The light-emitting device according to Claim 1 or 2,

wherein the N-type semiconductor contained in the second layer comprises at least one material selected from the group consisting of zinc oxide, tin oxide, and titanium oxide, a compound containing two or more of zinc oxide, tin oxide, and titanium oxide.

7. (Withdrawn) The light-emitting device according to Claim 1 or 2,

wherein the hole transporting material contained in the fourth layer comprises a hole-transporting material containing an inorganic compound.

8. (Withdrawn) The light-emitting device according to Claim 7,

wherein the hole-transporting material containing the inorganic compound comprises a P-type semiconductor.

9. (Withdrawn) The light-emitting device according to Claim 8,

wherein the P-type semiconductor is one selected from the group consisting vanadium oxide, chromium oxide, molybdenum oxide, cobalt oxide, and nickel oxide, a compound containing two or more of vanadium oxide, chromium oxide, molybdenum oxide, cobalt oxide, and nickel oxide.

10. (Withdrawn) The light-emitting device according to Claim 1 or 2,

wherein the hole transporting material contained in the fourth layer comprises a hole-transporting material containing an organic compound.

11. (Withdrawn) The light-emitting device according to Claim 10,

wherein the hole-transporting material comprises an organic compound having an aromatic amine skeleton.

12. (Withdrawn) The light-emitting device according to Claim 1 or 2,

wherein the hole transporting material contained in the fourth layer comprises a material doped with a material having electron-receiving properties to an organic compound.

13. (Withdrawn) The light-emitting device according to Claim 12,

wherein the material having electron-receiving properties comprises metal oxide.

14. (Withdrawn) The light-emitting device according to Claim 12,

wherein the material having electron-receiving properties comprises at least one material selected from the group consisting of molybdenum oxide, vanadium oxide, rhenium oxide, and a compound containing two or more of molybdenum oxide, vanadium oxide, and rhenium oxide.

15. (Previously Presented) A light-emitting device comprising:

an anode containing a light-transmitting material;

a first layer containing a light-emitting material over the anode;

a second layer containing an organic compound and an electron-supplying material over the first layer;

a third layer including a transparent conductive film over the second layer;

a fourth layer containing a hole transporting material over the third layer, the fourth layer being in direct contact with the third layer; and

a cathode containing reflective metal over the fourth layer, the cathode being in direct contact with the fourth layer,

wherein the transparent conductive film comprises at least one material selected from the group consisting of indium tin oxide, indium tin oxide containing silicon, and indium oxide containing zinc oxide by 2 to 20%.

16. (Currently Amended) A light-emitting device comprising:

an anode;

a first layer containing a light-emitting material over the anode;
a second layer containing an organic compound and an electron-supplying material over the first layer;
a third layer including a transparent conductive film over the second layer;
a fourth layer containing a hole transporting material over the third layer, the fourth layer being in direct contact with the third layer; and
a cathode over the [[forth]] fourth layer, the cathode being in direct contact with the fourth layer,

wherein the transparent conductive film comprises at least one material selected from the group consisting of indium tin oxide, indium tin oxide containing silicon, and indium oxide containing zinc oxide by 2 to 20%.

17. (Original) The light-emitting device according to Claim 15 or 16,

wherein the reflective metal comprises at least one material selected from the group consisting of aluminum, silver, alloy containing aluminum, or alloy containing silver.

18. (Previously Presented) The light-emitting device according to Claim 15 or 16,

wherein the transparent conductive film is not in direct contact with the reflective metal.

19. (Original) The light-emitting device according to Claim 15 or 16,

wherein the organic compound contained in the second layer comprises an organic compound having electron-transporting properties.

20. (Original) The light-emitting device according to Claim 15 or 16,
wherein the organic compound contained in the second layer comprises a metal
complex having a ligand including a π -conjugated skeleton.

21. (Original) The light-emitting device according to Claim 15 or 16,
wherein the electron-supplying material comprises at least one material selected from
the group consisting of alkali metal, alkali-earth metal, and rare-earth metal.

22. (Original) The light-emitting device according to Claim 15 or 16,
wherein the electron-supplying material comprises at least one material selected from
the group consisting of Li, Cs, Mg, Ca, Ba, Er, and Yb.

23. (Original) The light-emitting device according to Claim 15 or 16,
wherein the hole transporting material contained in the fourth layer comprises an
inorganic compound.

24. (Original) The light-emitting device according to Claim 23,
wherein the hole-transporting material containing the inorganic compound comprises
a P-type semiconductor.

25. (Original) The light-emitting device according to Claim 24,
wherein the P-type semiconductor comprises at least one material selected from the

group consisting of vanadium oxide, chromium oxide, molybdenum oxide, cobalt oxide, nickel oxide, and a compound containing two or more of vanadium oxide, chromium oxide, molybdenum oxide, cobalt oxide, and nickel oxide.

26. (Original) The light-emitting device according to Claims 15 or 16,

wherein the hole transporting material contained in the fourth layer comprises an organic compound.

27. (Original) The light-emitting device according to Claim 26,

wherein the hole-transporting material is an organic compound having an aromatic amine skeleton.

28. (Original) The light-emitting device according to Claims 15 or 16,

wherein the hole transporting material contained in the fourth layer comprises a material doped with a material having electron-receiving properties to an organic compound.

29. (Original) The light-emitting device according to Claim 28,

wherein the material having electron-receiving properties comprises metal oxide.

30. (Previously Presented) The light-emitting device according to Claim 28,

wherein the material having electron-receiving properties comprises at least one material selected from the group consisting of molybdenum oxide, vanadium oxide, rhenium oxide, and a compound containing two or more of molybdenum oxide, vanadium oxide, and rhenium oxide.

31. (Original) An electronic device comprising a light emitting device according to any one of claims 1, 2, 15 and 16, wherein the electronic device is one selected from the group consisting of a television receiving machine, a personal computer, head mount display, a mobile phone and a video camera.

32. (Previously Presented) A light-emitting device comprising a light-emitting material, the light-emitting device comprising:

an anode;

a cathode;

a first layer containing the light-emitting material between the anode and the cathode;

a second layer containing an organic compound and an electron-supplying material

between the first layer and the cathode;

a third layer including a transparent conductive film between the second layer and the cathode; and

a fourth layer containing a hole transporting material between the third layer and the cathode,

wherein the fourth layer is in direct contact with the third layer and the cathode, and

wherein the transparent conductive film comprises at least one material selected from the group consisting of indium tin oxide, indium tin oxide containing silicon, and indium oxide containing zinc oxide by 2 to 20%.

33. (Previously Presented) The light-emitting device according to Claim 32,

wherein the cathode comprises at least one material selected from the group consisting of aluminum, silver, alloy containing aluminum, or alloy containing silver.

34. (Previously Presented) The light-emitting device according to Claim 32,

wherein the anode comprises at least one material selected from the group consisting of indium tin oxide, indium tin oxide containing silicon, and indium oxide containing zinc oxide by 2 to 20%.

35. (Previously Presented) The light-emitting device according to Claim 32,

wherein the organic compound contained in the second layer comprises an organic compound having electron-transporting properties.

36. (Previously Presented) The light-emitting device according to Claim 32,

wherein the organic compound contained in the second layer comprises a metal complex having a ligand including a π -conjugated skeleton.

37. (Previously Presented) The light-emitting device according to Claim 32,

wherein the electron-supplying material comprises at least one material selected from the group consisting of alkali metal, alkali-earth metal, and rare-earth metal.

38. (Previously Presented) The light-emitting device according to Claim 32,

wherein the electron-supplying material comprises at least one material selected from the group consisting of Li, Cs, Mg, Ca, Ba, Er, and Yb.

39. (Previously Presented) The light-emitting device according to Claim 32,
wherein the hole transporting material contained in the fourth layer comprises an
inorganic compound.

40. (Previously Presented) The light-emitting device according to Claim 39,
wherein the hole-transporting material containing the inorganic compound comprises
a P-type semiconductor.

41. (Previously Presented) The light-emitting device according to Claim 40,
wherein the P-type semiconductor comprises at least one material selected from the
group consisting of vanadium oxide, chromium oxide, molybdenum oxide, cobalt oxide, nickel
oxide, and a compound containing two or more of vanadium oxide, chromium oxide, molybdenum
oxide, cobalt oxide, and nickel oxide.

42. (Previously Presented) The light-emitting device according to Claims 32,
wherein the hole transporting material contained in the fourth layer comprises an
organic compound.

43. (Previously Presented) The light-emitting device according to Claim 42,
wherein the hole-transporting material is an organic compound having an aromatic
amine skeleton.

44. (Previously Presented) The light-emitting device according to Claims 32, wherein the hole transporting material contained in the fourth layer comprises a material doped with a material having electron-receiving properties to an organic compound.

45. (Previously Presented) The light-emitting device according to Claim 44, wherein the material having electron-receiving properties comprises metal oxide.

46. (Previously Presented) The light-emitting device according to Claim 44, wherein the material having electron-receiving properties comprises at least one material selected from the group consisting of molybdenum oxide, vanadium oxide, rhenium oxide, and a compound containing two or more of molybdenum oxide, vanadium oxide, and rhenium oxide.

47. (Previously Presented) An electronic device comprising a light emitting device according to claim 32, wherein the electronic device is one selected from the group consisting of a television receiving machine, a personal computer, head mount display, a mobile phone and a video camera.

48. (Previously Presented) The light-emitting device according to Claim 15, wherein the first layer includes a light-emitting layer containing the light-emitting material, and electron-injecting layer, and electron-transporting layer, a hole-blocking layer, a hole-transporting layer, and a hole-injecting layer.

49. (New) The light-emitting device according to Claim 15, wherein the third layer is in direct contact with the second layer.